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⑤4 Bone acidic glycoprotein (BAG-75) for inhibiting bone resorption.

(57) Disclosed is a new method for treating bone disease in mammals, which is associated with increased bone resorption activity (dissolution or breakdown), and involves the new use and administration of known bone acidic glycoproteins 75 (BAG 75), having a molecular weight of 75Kda as determined by SDS-PAGE, or the 50kDa (SDS-PAGE) fragment thereof, wherein BAG 75 contains an N-terminal sequence of:

Leu-Pro-Val-Ala-Arg-Tyr-Gln-Asn-Thr-Glu-Glu-Glu-Glu.

(SEQ. ID NO. 1), (LPVARYQNTTEEE). The method is applicable and indicated for osteoporosis, Paget's disease, hyperparathyroidism, hypercalcemia of malignancy, osteopenia due to bone metastases, bone loss due to immobilization, sex hormone deficiency, glucocorticoid treatment, periodontal disease, and periarticular erosion in rheumatoid arthritis.

**EP 0 514 130 A3**

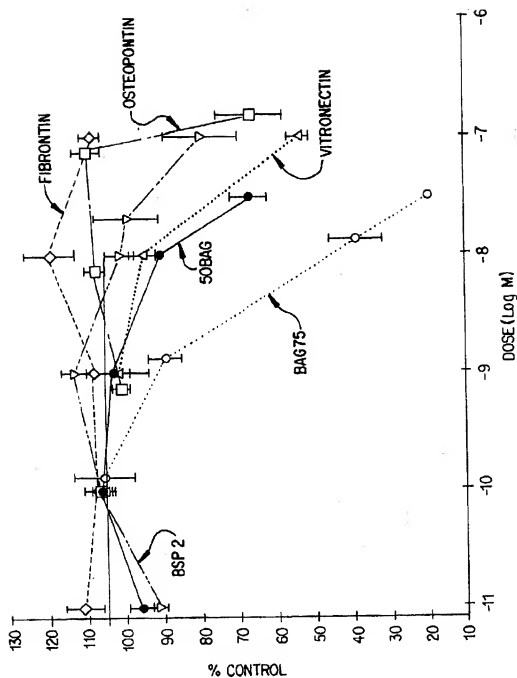


FIG. 1



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number

EP 92 30 4260

| DOCUMENTS CONSIDERED TO BE RELEVANT  |  |  |   |
|--|--|--|---|
| Category   | Citation of document with indication, where appropriate, of relevant passages  | Relevant to claim  | CLASSIFICATION OF THE APPLICATION (Int. Cl.5) |
| D,A  | THE JOURNAL OF BIOLOGICAL CHEMISTRY<br>vol. 265, no. 25, 1990, BALTIMORE, USA<br>pages 14956 - 14963<br>GORSKI ET AL 'BONE ACIDIC GLYCOPROTEIN-75<br>IS A MAJOR SYNTHETIC PRODUCT OF<br>OSTEOBLASTIC CELLS AND LOCALIZED AS 75-<br>AND/OR 50-KDA FORMS IN MINERALIZED PHASES<br>OF BONE AND GROWTH PLATE AND IN SERUM'<br>* the whole document * | 1-3  | A61K37/02                                     |
| D,A  | THE JOURNAL OF BIOLOGICAL CHEMISTRY<br>vol. 263, no. 31, 1988, BALTIMORE, USA<br>pages 15938 - 15945<br>GORSKI ET AL 'ISOLATION OF NEW<br>PHOSPHORYLATED GLYCOPROTEIN FROM<br>MINERALIZED PHASE OF BONE THAT EXHIBITS<br>LIMITED HOMOLOGU TO ADHESIVE PROTEIN<br>OSTEOPONTIN'<br>* the whole document *  | 1-3  |   |
|  |  |  | TECHNICAL FIELDS<br>SEARCHED (Int. Cl.5)      |
|  |  |  | A61K<br>C07K                                  |
| The present search report has been drawn up for all claims   |  |  |   |
| Place of search<br>THE HAGUE   |  | Date of completion of the search<br>03 MAY 1993  | Examiner<br>SITCH W.D.C.                      |
| CATEGORY OF CITED DOCUMENTS  |  | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or<br>after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>A : technological background<br>O : non-written disclosure<br>F : intermediate document |   |
| X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another<br>document of the same category<br>A : technological background<br>O : non-written disclosure<br>F : intermediate document |  | a : number of the same patent family, corresponding<br>document  |   |

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